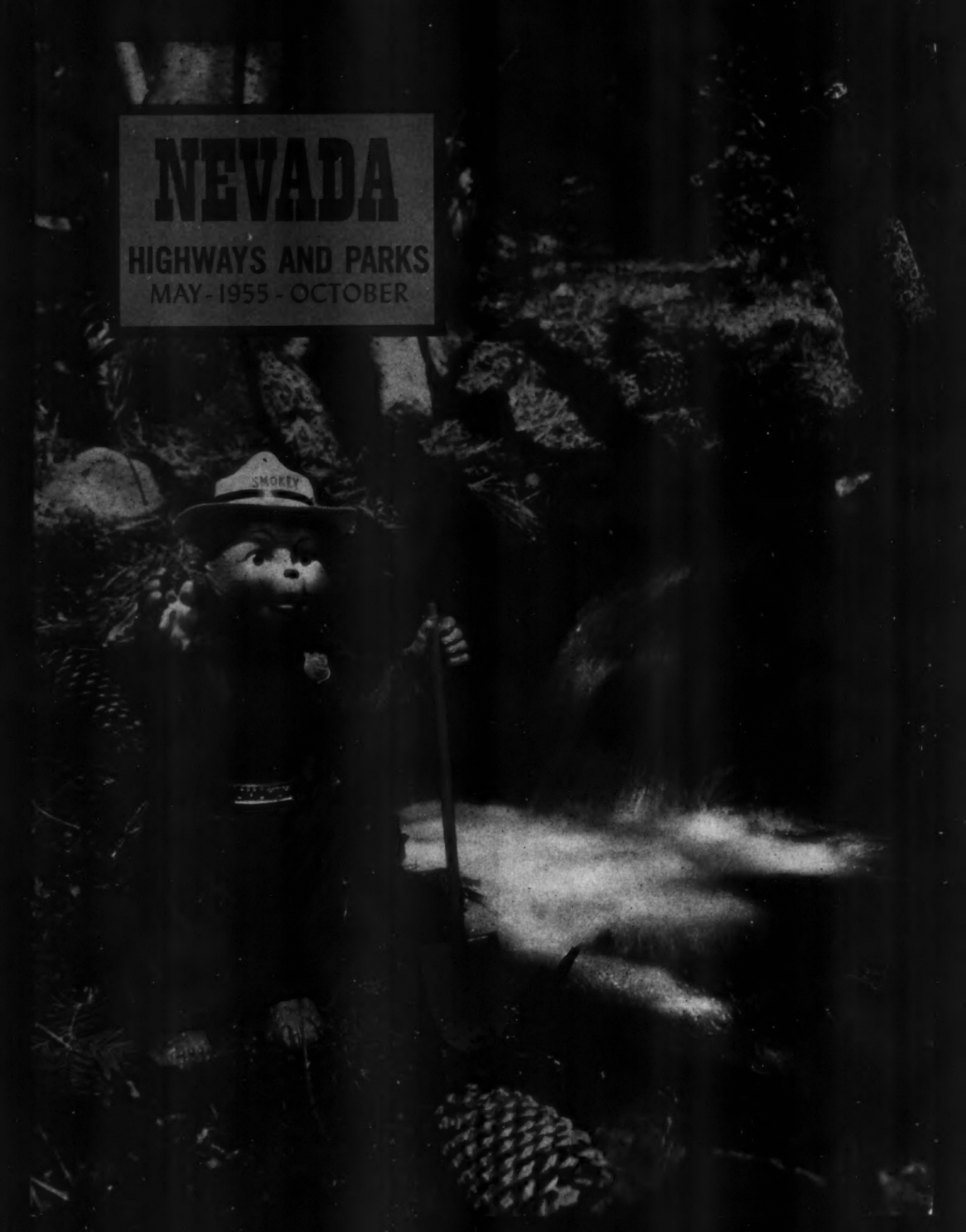
NEVADA

HIGHWAYS AND PARKS

MAY - 1955 - OCTOBER



NEVADA HIGHWAYS AND PARKS

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CARSON CITY, NEVADA

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Nevada Highways and Parks Magazine is not to be sold.

THE FRONT COVER

Smokey for many years has been a symbol associated with forests all over the nation. It always makes him sad when trees burn.

Smokey knows that forest fires are destructive. He wants everyone to realize that beautiful, living trees can be destroyed by fire in five minutes even though some may be 100 years old. Smokey feels ashamed of human beings who, through carelessness, start fires in the forests, and you can't blame him for that. He's trying to prevent forest fires and keep the God-given treasures in their natural beauty so that all mankind can utilize and enjoy them.

Just for a little change of scenery we took Smokey out into a quiet, restful spot in a Nevada forest area near Lake Tahoe and posed him alongside some pleasant surroundings. Smokey, amid the pine cones, the forest, the babbling brook, and the invigorating pine-scented air, is on our front cover page.

PHOTOGRAPHIC CREDITS

Black and whites: Pages 2, 3, 6 and 7, courtesy Forest Service, Carson City; upper right page 10, bottom page 14, all of page 15, page 22, all on page 23, all on page 26, all on page 27, Chamber of Commerce, Las Vegas; lower right page 10, all of page 11, top left page 14, all of page 18, all of page 19, Adrian Atwater, highway staff; lower left page 30 and all on page 31, Hedrich-Blessing, Chicago.

Trees which have matured in growth are ready for harvesting. The lumber is used for man's comfort and convenience. Here is a tree in a western Nevada forest area on its way to the lumber mill and a house.

PHOTOGRAPHIC CREDITS

Color: Page 1, upper right page 5, page 8, upper right and lower left page 9, upper and lower left page 12, pages 16–17, all of pages 20 and 21, top left page 24, top left and top right page 25, left center and lower right page 28, all of page 29, and page 32, Adrian Atwater, Highway Department staff photographer; all of page 4, all on left and lower right page 5, courtesy Forest Service, Carson City; lower right page 9, Otis Wright, Las Vegas; top right page 12, all of page 13, lower left page 24, lower right page 25, Chamber of Commerce, Las Vegas; upper and lower right page 24, National Park Service, Boulder City; upper left and lower left, Mr. Knoblaugh, B. R. I., Cleveland, Ohio.

"Poems Are Made By Fools Like Me
But Only God Can Make A Tree—"

Joyce Kilmer

A rustic bridge over a mountain stream, in the deep shade of a Nevada forest, is a delightful place to be on a hot summer's day.

50 YEARS OF FORESTRY—NEVADA'S CONTRIBUTION

WHOEVER you are, wherever you live, you—as an American—are part owner of some 181,000,000 acres of valuable forest lands scattered in all parts of the nation. Your national forests contain nearly one-sixth of the nation's forest lands which can grow trees for wood products. The forest areas were established by the American people through their national government, mainly for production of timber and protection of the watersheds of thousands of streams.

National forests also provide forage for livestock, homes and food for wildlife, and recreational opportunities for everyone. All of these resources are managed to provide the greatest possible continuing use by the American people. This is where the forest rangers come in. They are the men right on the ground who protect, manage and improve your forests and their resources for your benefit and use. Employed and paid by you, the forest rangers are completely "in your service."

For 50 years this branch of the United States government has functioned successfully. This year the Forest Service celebrates its fiftieth anniversary and the record is one of great achievement.

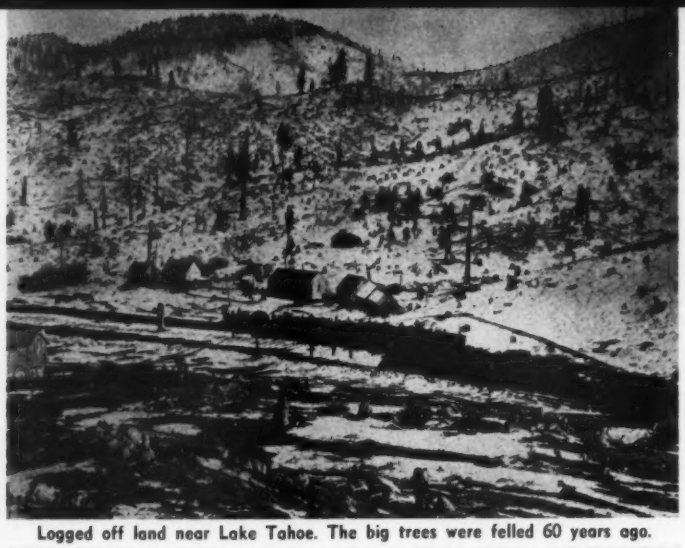
Your modern day forest rangers, technically trained through college study and practical down to earth experience, are specialists in managing timber, range, water, recreation and wildlife resources.

Your forest rangers see that trees are harvested when they are ripe for harvesting. To guide them in this work they use management plans which show where and how much timber will be cut each year.

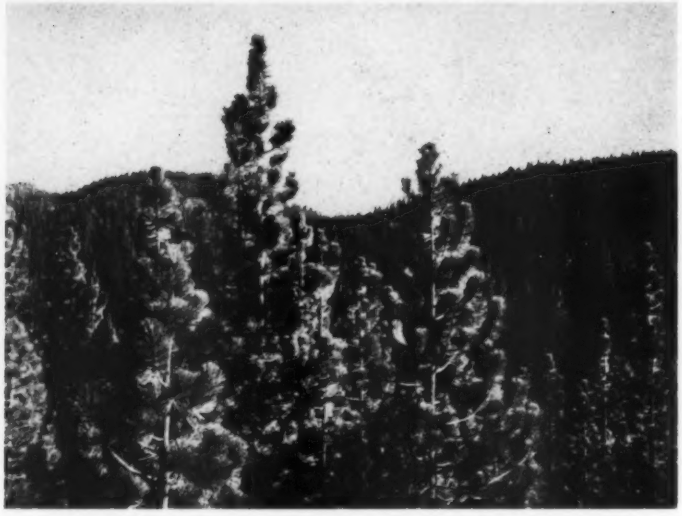
The forest rangers look after your grazing lands and this is a big part of national forest use, particularly in the West, where sheep and cattle graze on the national forest lands.

Your forest rangers have a twofold responsibility. They must

Forest fires are totally destructive. That's why we shout "Prevent Forest Fires."



Logged off land near Lake Tahoe. The big trees were felled 60 years ago.



From almost the identical spot, 60 years later, this picture was taken.

see that there will be sufficient forage, year after year, for the livestock of the thousands of families who depend on the ranges for their living and for the big game which also use the range. They must make sure that enough grass and other forage plants are left over to assure a future crop and to protect the land against erosion or floods.

Nearly one-third of all the big game animals in the United States and many, many thousands of fur bearers, game birds, and waterfowl frequent your national forests. Because the national forests are a "realm of the wild" that is open to public use, they attract many hunters and others who love the outdoors. More than 80,000 miles of trout streams and 2,250,000 acres of natural and artificial lakes offer sport to the angler. The rangers manage the wildlife habitat as they do the other resources, both as an entity in itself and in relation to timber, range, recreation and water. They work closely with State Fish and Game Commissions to provide better fishing and hunting under state laws, for the many thousands of people who love these outdoor sports.

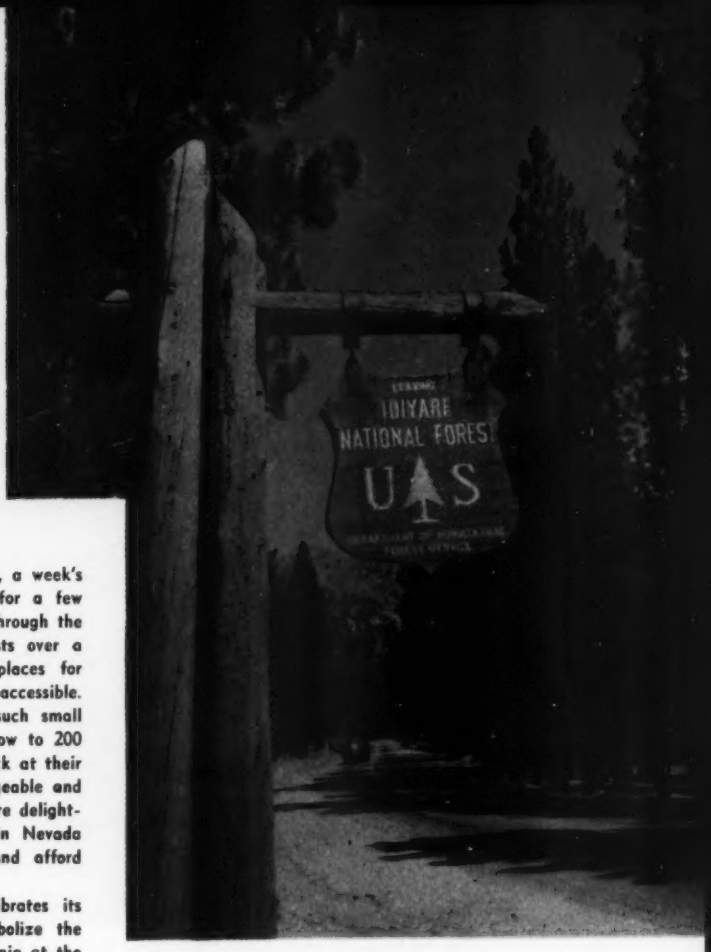
The Forest Service also provides facilities for your recreation, such as picnicking, swimming, camping, hiking, or skiing. Your national forests with their beautiful woods, lakes, streams and mountains offer a wide variety of outdoor recreation. Depending on where you go you will find tables, benches, fireplaces, good camping sites, and fine ski slopes. Good roads and marked trails make the recreation sites easy to reach. There are also organizational camps in the national forests, in which Boy Scouts, Girl Scouts, and other groups—adults as well as youngsters—may live outdoors, have fun and relax.

When fire gets loose in the forests other activities come to a standstill. There is very little glamour in fighting a forest fire. It is just hot, hard, dangerous work and a lot of it must be done by hand.

It takes 100 years, or more, for a tree to grow to maturity and become the graceful living symbol of nature which you see in so many places and admire so rightly, but it takes only five minutes to destroy that which nature took so long to build. Do you wonder why forest rangers and newspapers continually warn about "putting your fires dead out"? It is necessary to do so. Just a little thought and consideration would prevent many forest and range fires which destroy trees, forage and watersheds—things of real value. These fires scar the landscape and keep it blackened for years before a tree can again start on its long, long, journey of growing to maturity.

Insects and disease are less spectacular than fires but they kill more trees every year than the fire does. Your forest rangers watch for outbreaks of insects and diseases and prevent them from getting out of hand.

(Page four)



Whether you go on a day's outing, a week's camping trip, a picnic, "rough it" for a few nights in the outdoors, or just drive through the beautiful trees of the Nevada forests over a smooth, paved highway, delightful places for recreation and relaxation are always accessible.

It is hard to realize that from such small seedlings the giants of the forest grow to 200 feet or more and are 5 to 6 feet thick at their bases. Moods of the forest are changeable and in the autumn the splashes of color are delightful to see. There are many areas in Nevada where such beauty spots abound, and afford incomparable scenic views.

This year the Forest Service celebrates its fiftieth birthday and the seals symbolize the notable event. We present these insignia at the bottom of this page.

This fishing scene along a mountain stream in a Nevada forest prompts you to look to your rod and reel right quick.

Outdoor cooking facilities have been set up in many areas of Nevada's forests.

Every job a forest ranger does requires planning. The main idea, of course, is to make the national forests as useful as possible to the public and, at the same time, easier to protect and manage. This requires the construction and maintenance of many physical improvements. Every forest road, bridge, or trail makes it easier for the forest rangers to take care of the forests, and provides service to the public as well. Once built, they must be maintained. They must be kept open for the work crews and for the many other people who work in the forests or who like to drive, ride, or hike through them.

In managing the national forests, your forest rangers draw upon the experiences of rangers who came before them and on the practical results of years of study by men in the Forest Service Experiment Stations.

The timber, grass, wildlife, recreation values, and water on every national forest are managed and protected in the interest of every American, not only for today but for all years to come.

Nevada, considered a desert state, has wide forest areas. They are divided into broad contiguous units designated as the Humboldt National Forest, the Nevada National Forest, and the Toiyabe National Forest.

The Humboldt Forest embraces vast areas of Elko County in the northeastern section of the State. The Nevada National Forest embraces parts of White Pine, Clark, and Nye Counties, while the Toiyabe National Forest includes acreage in Washoe, Ormsby, Douglas, Mineral, Humboldt, Nye, Eureka, and Lander Counties.

In some of these areas trees are of a smaller variety and

To maintain good fishing, Nevada streams are stocked with small fry. Forest Service, Fish and Wildlife, state and county agencies all cooperate in this work.

unsuited to logging and timbering. In other sections, such as the western part of the State and in the Sierra Nevada mountains, logging on a large scale is conducted. The timber is sent to mills and processing plants in Reno. Many years ago these forests provided the enormous amount of timber which was used in the Comstock silver mines at Virginia City.

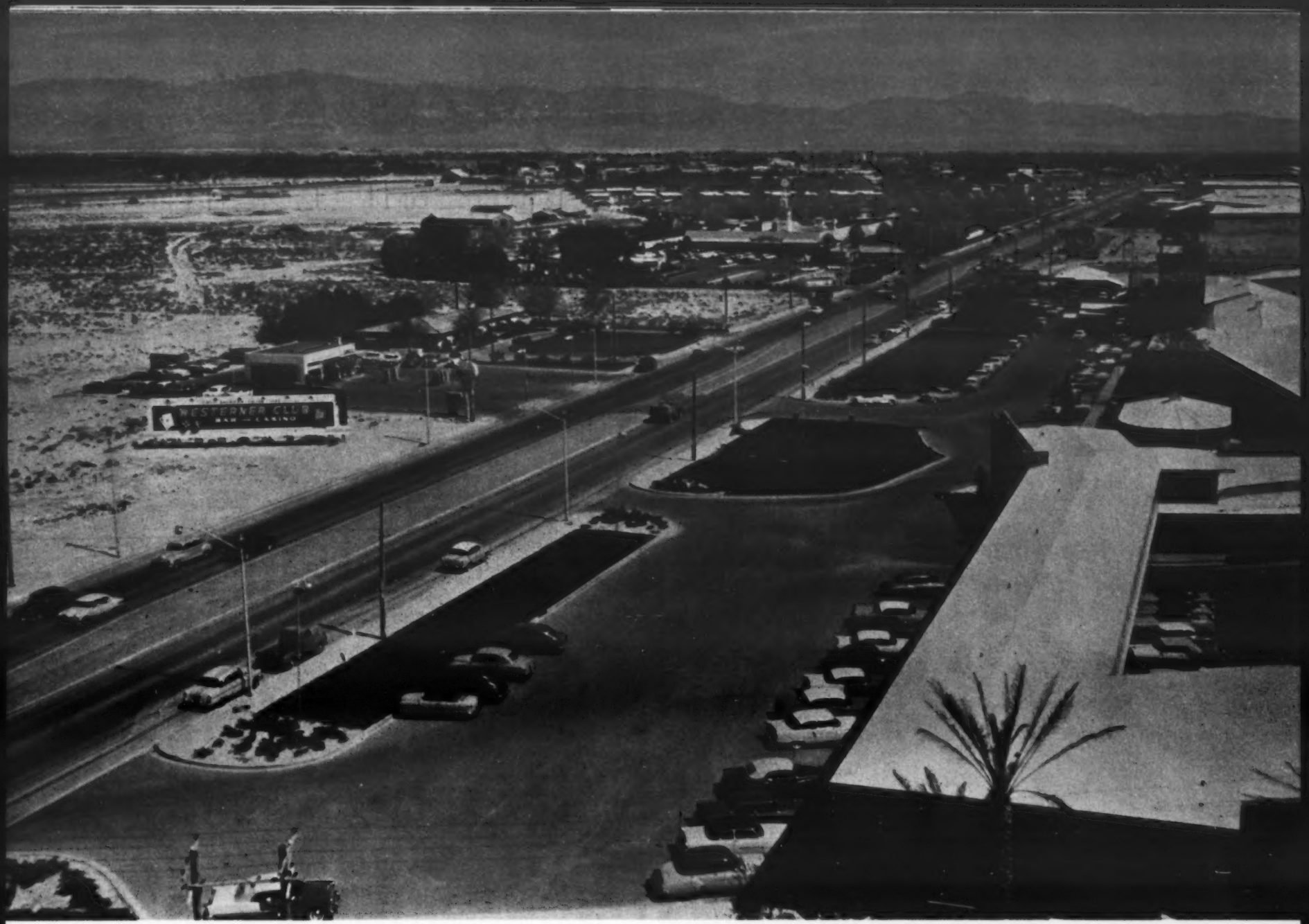
In each of the divisions recreational areas have been conditioned and made accessible to visitors. In Elko County, the Lamoille, Angel Lake, and Wildhorse Crossing units have such facilities. Along Timber Creek, Lehman Creek, and the Ward Mountain Camp in White Pine County, like facilities are afforded; while in the Deer Creek, Lee Canyon, Kyle Canyon, and Kyle Canyon Trailer Camp of Clark County, places have been provided to accommodate those who love the outdoors and the smell of the pines. Other sites in Douglas, Nye, Ormsby, Washoe, and in Lander Counties are available for recreational use and activities.

The forests of the State comprise several million acres, and are under the supervision of the Forest Service which has set up several district offices in charge of a more direct and limited area.

Over the years these forest men have built up the prestige of the Forest Service and take great pride in their work. They are eager to serve the public in their capacity as public servants.

If you will always remember, while you are in the forests, in camp, picnicking, hunting, fishing, or hiking, that you can destroy in five minutes what it takes nature 100 years to build, the danger of forest fires can be greatly minimized.

Cool, delicious drinking water in selected forest areas is piped to the picnic grounds.



Here's a picture of the famous "Strip" in Las Vegas, Nevada, along which many large luxury hotels have been built to serve the ever-increasing number of visitors to that city. The scene also shows a sweep of the broad highway, which is a part of the Los Angeles highway, U. S. 91. From the roof of the new 7-story Riviera Hotel this scene is toward the city of Las Vegas.

Every Engineering Safety Factor Has Been Built In Nevada's Modern, Paved Highway Network

IN THIS far-flung desert country during the last 30 years, Nevada has expended time, labor and money to develop an adequate network of paved roads to serve the general cross-country traveling public, as well as to reach many isolated sections of the State for her own people.

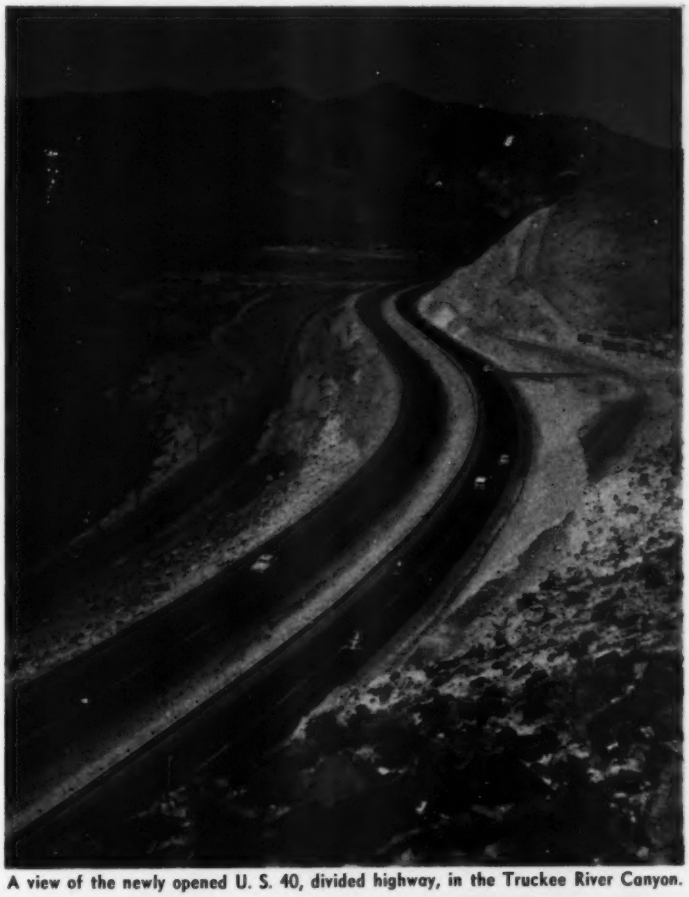
In this State covering 110,500 square miles of land, the problem of providing highways to reach all corners is a difficult one. This is particularly true when one considers that the entire State is interlaced with high mountain ranges, and interspersed with broad, flat valleys.

Nevada's Department of Highways has kept in line with modern progress and met its highway obligations successfully. Like all other states, Nevada has had the aid of the Bureau of Public Roads, representing the national government, for financing and engineering help, which has accelerated the pace of bringing about the desired objective. Nevada people are grateful for this help, but we must also remember that Uncle Sam still owns about 87 percent of the land in Nevada, and his generous help is in keeping with that which he owns.

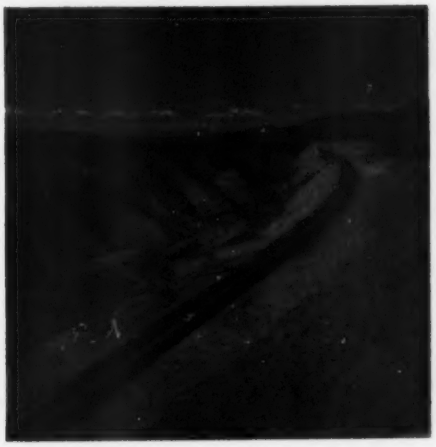
Our highly improved highway system now consists of approximately 2,200 miles of primary highways, plus almost a like amount of secondaries which supplement the main arteries of travel. The principal cross-country, likewise cross-state, arteries are U. S. 40, 50, 6, 91, 93, 95 and 395, all of which are paved and serve the traffic well.

In the vicinity of Reno, Las Vegas, Elko, Ely, Sparks, Henderson, Boulder City and several other cities and towns, highways have been constructed to carry adequately the heavier current of automobiles for the present traffic, and also with a view to a future increase.

During the past 20 years Nevada Department of Highways has revamped its entire highway system, eliminated most of the narrow, dangerous stretches, improved sight distances



A view of the newly opened U. S. 40, divided highway, in the Truckee River Canyon.



In the southeastern corner of Nevada near the Mormon Mesa, U. S. 91 improvements involved heavy excavation work.

Left—Our Tonopah shops are of the latest design and utility construction. They serve as division headquarters for Nevada Department of Highways equipment and administration.

Sweeping view of highway U. S. 91 as it passes through the "Strip" district of Las Vegas. This represents the progress of highway construction maintained in Nevada during the past several years. Insert shows heavy equipment at work on a difficult highway job.

through various engineering factors, eased grades for smoother travel, made them wide enough for safe passing of fast-moving vehicles, straightened out the curves, filled in the low places and painted safety lines for guidance to safer driving. Through these efforts we have achieved a result which is in keeping with the finest highways in the land.

Traffic volume in the State is constantly increasing and this will necessitate planning for more four lanes and even freeways to afford the service which motor car drivers demand.

Each year more and more visitors and tourists come to our State for varying lengths of time. These folks are discovering that Nevada has much to offer in the way of nature's gifts as well as of human culture. So that we may serve these people and keep up with the trend of greater safety and adequate facilities to meet their demands, our designing, planning, engineering and maintenance departments are constantly striving to improve our Nevada roads. Our traffic studies and surveys give definite data on which to base our future planning and design.

With the knowledge that our highways are good we are striving to make them better, and are confident that when you come to our State and use these facilities you will not be disappointed.

With this assurance the Nevada Department of Highways invites you to come into Nevada and pay us a visit. Stay for awhile. There are so many things to see and so much to do it will take more than a couple of days to do it justice. Nevada folks welcome you and will be happy to offer any assistance in showing you the hundreds of places of interest which are the heritage of this great western American state.

Serving the Lake Tahoe area, this stretch of U. S. 50, at Spooners, was widened and realigned to adequately accommodate heavier traffic.

Near Lovelock, highway U. S. 40 is paved, wide and a pleasure to travel over.

In the vicinity of Fallon, highways are paved, wide and much traveled.

A stretch of 4-lane highway, U. S. 395 south of Reno, through the lush Truckee Meadows district.

Charleston Park, "45 minutes from fabulous Las Vegas," is a delightful place, high above the heat of the desert in southern Nevada. It has facilities for both summer and winter recreation. Cool and refreshing in summer, one travels to the forests and recreational areas through desert vegetation which prevails below 5,000 feet. Charleston Peak, 11,810 feet elevation, looms in the background. Trails for experienced hikers lead to the top of this limestone mass. The paved road extends to the recreation center over the Kyle Canyon road. The forested area in the upper altitudes of the park is served by good, well-maintained dirt roads, easily travelable. The picture (top, right) shows a part of the Lodge which has been gripped by Jack Frost, who wrapped his icy fingers around the trees and cabins and left a picturesque winter scene.

Charleston Park – A Winter-Summer Recreational Area Forty-Five Minutes From Fabulous Las Vegas

CHARLESTON Park, a delightful recreational area "Forty-Five Minutes From the Fabulous Strip" in Las Vegas, Nevada, puts a primeval forest at the very door of the West's newest metropolis whose people hold a strong concept of rugged individualism. This unspoiled natural paradise, 35 miles distant by road from Vegas, embraces a large part of a 61,000-acre-island of mountainous forest surrounded by a "sea" of desert.

Forty-five minutes to the northwest of Las Vegas the Charleston Park area of recreation affords natural surroundings bedecked with a variety of trees which range from ponderosa pine to white fir, and the largest stand of foxtail pine in the world, limber pine, juniper and aspen. The dividing line of vegetation between the desert-level type and the mountain-flank variety is quite perceptible at 5,000 feet elevation. Below that line the desert takes over and prevails. Desert shrub, Joshua trees, catclaw, and greasewood make themselves conspicuous in great numbers as one leaves the mountain retreat downbound for the city. Sagebrush, which thrives profusely farther north in the State, is quite conspicuous by its absence.

In Charleston Park one may enjoy the peace and quiet of a setting in natural forest grandeur with a background of towering mountains.

Charleston Park has many inducements for the enjoyment of visitors.

Snow often covers the shelter houses, but it's wonderful for winter sports.

Cottages for summer vacationists or winter sports lovers are available in Lee Canyon, up where the snow comes early and stays late.

Deer Creek is the only flowing stream within the Charleston division of the Nevada National Forest. All other canyons are dry washes having water only after infrequent rainstorms, but usually dry during the mid- and late-summer season. Deer Creek is 1¼ miles northwest along Deer Creek road from Hilltop Forest Camp.

One of the outstanding scenic drives in the entire district is that which takes the visitor over Deer Creek road. This is a beautiful 9-mile drive from Kyle Canyon, northwest through the Deer Creek drainage area and on to Lee Canyon.

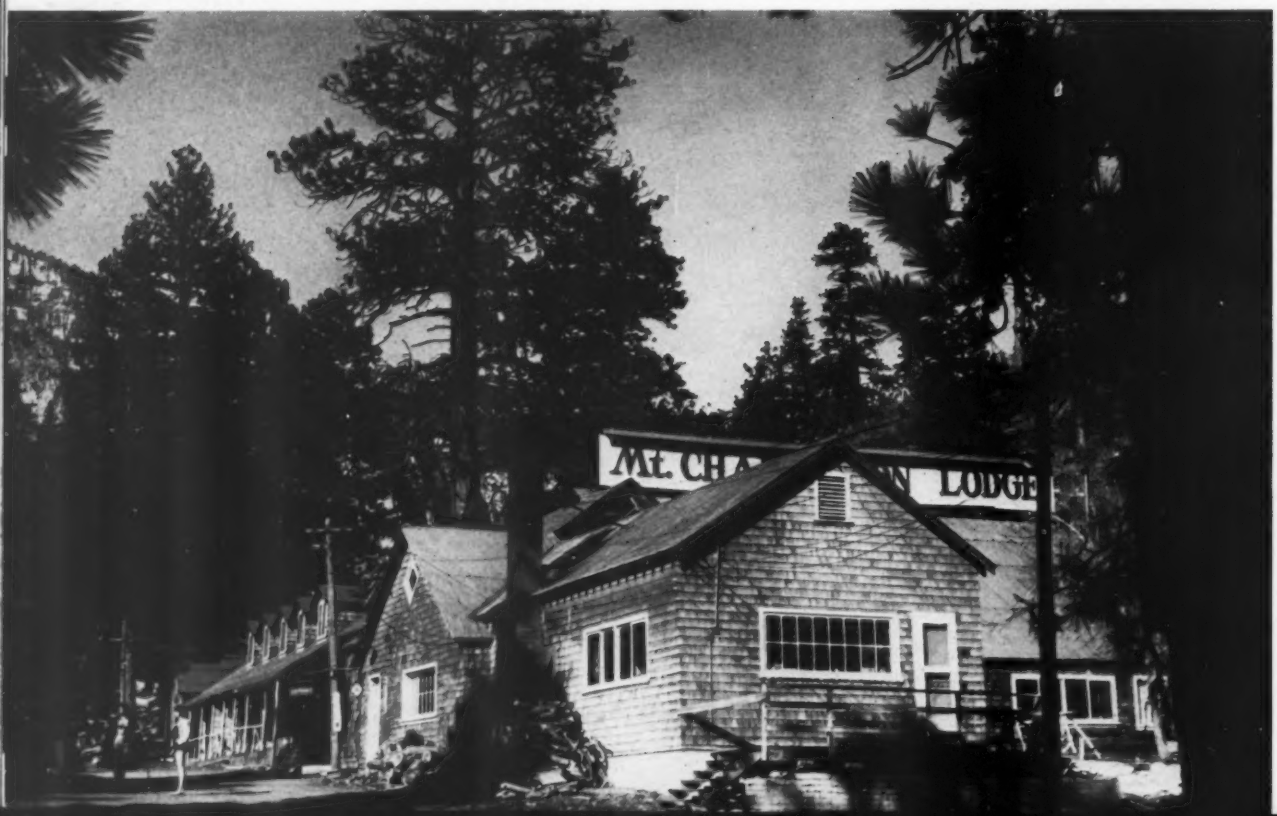
Lee Canyon also can be reached by the Deer Creek road from Kyle Canyon, or on U. S. Highway 95, 28 miles northwest of Las Vegas, and 14 miles southwest by the way of State Highway 52, which is also signed as the Lee Canyon road. The Deer Creek road is not kept open during the winter season. Lee Canyon has camp and picnic grounds, organization camps and a winter sports area. Scenery in this part of the park is exceptionally striking in beauty and ruggedness.

A notable feature concerning this excellent southern Nevada playground area is that of its temperature range. Up in Charleston Park the air is comfortable and cool even during the hottest of summer days, while the nights are cold enough to make one reach for a blanket in the middle of the night.

Within a distance of 5 miles from the coolest part of the park downgrade to the opening canyon where the desert begins to show its wares, one frequently experiences a temperature change of as much as 45 degrees.

Charleston Park is convenient to Las Vegas and its facilities are well used by those who seek respite from the summer heat or those who like the vigorous winter sports when the mountain sides are mantled with snow. Las Vegas is also a strategic starting point for various other natural scenic wonders and engineering projects of great magnitude, such as Hoover Dam, and Davis Dam farther down the Colorado River. Lake

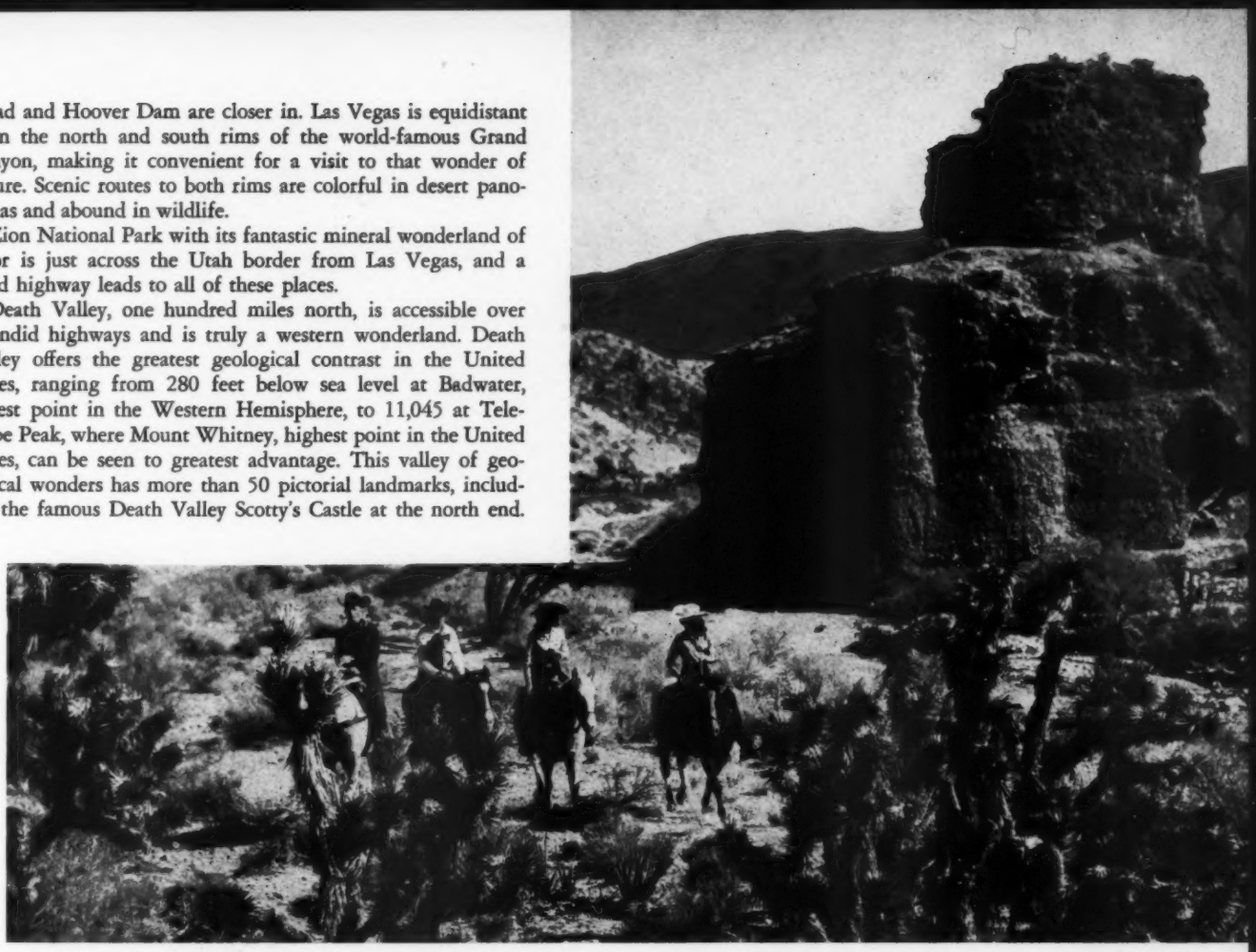
Mount Charleston Lodge at the upper end of Kyle Canyon has accommodations for those who wish to stay a day, or for an extended visit.



Mead and Hoover Dam are closer in. Las Vegas is equidistant from the north and south rims of the world-famous Grand Canyon, making it convenient for a visit to that wonder of nature. Scenic routes to both rims are colorful in desert panoramas and abound in wildlife.

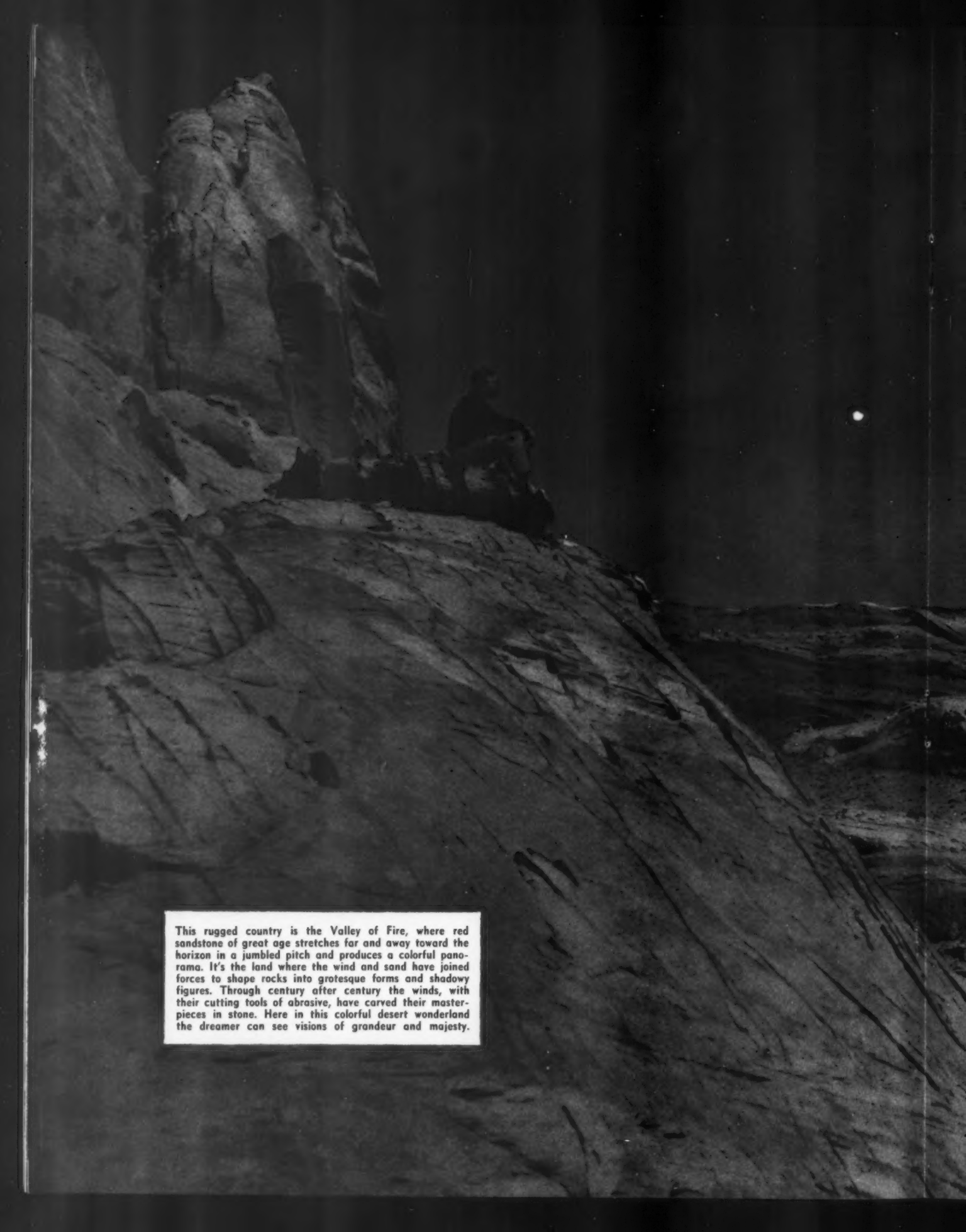
Zion National Park with its fantastic mineral wonderland of color is just across the Utah border from Las Vegas, and a good highway leads to all of these places.

Death Valley, one hundred miles north, is accessible over splendid highways and is truly a western wonderland. Death Valley offers the greatest geological contrast in the United States, ranging from 280 feet below sea level at Badwater, lowest point in the Western Hemisphere, to 11,045 at Telescope Peak, where Mount Whitney, highest point in the United States, can be seen to greatest advantage. This valley of geological wonders has more than 50 pictorial landmarks, including the famous Death Valley Scotty's Castle at the north end.

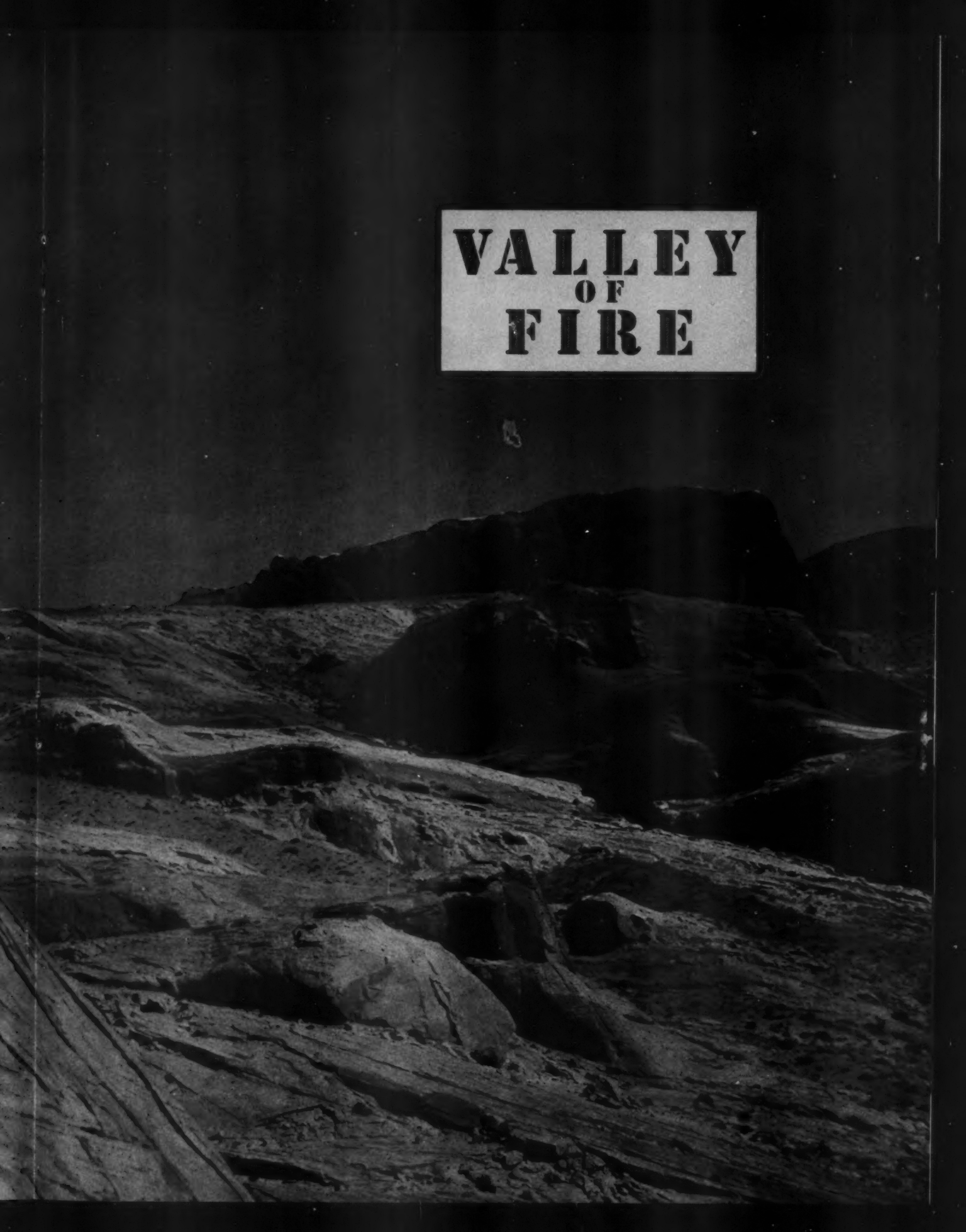


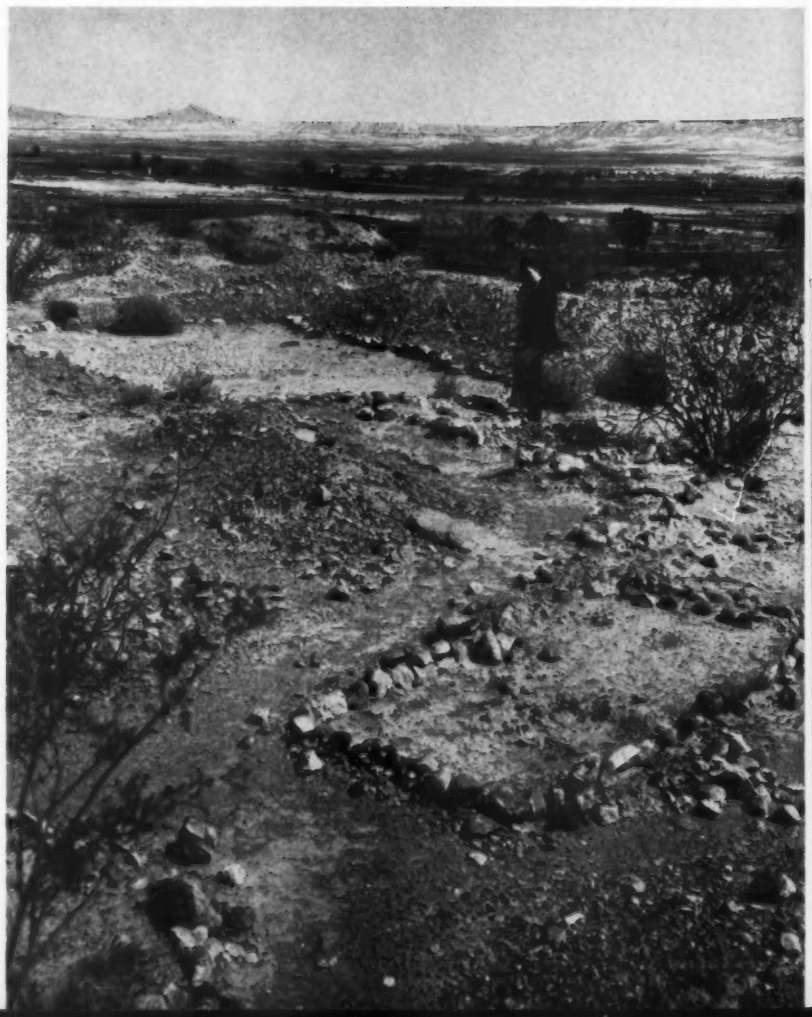
Horseback riding through the Joshua trees and the desert vegetation along the road to Charleston Park, in southern Nevada, is a popular outdoor diversion.

By a crackling fire in the open country along the old Charleston Trail, a happy group warms the nippy night air with bits of music.



This rugged country is the Valley of Fire, where red sandstone of great age stretches far and away toward the horizon in a jumbled pitch and produces a colorful panorama. It's the land where the wind and sand have joined forces to shape rocks into grotesque forms and shadowy figures. Through century after century the winds, with their cutting tools of abrasive, have carved their masterpieces in stone. Here in this colorful desert wonderland the dreamer can see visions of grandeur and majesty.


VALLEY
OF
FIRE



Walt Disney could probably have sketched a better Donald Duck, but this one was shaped naturally by the wind, rain and sand in the Valley of Fire, southeastern Nevada. It took nature centuries to complete the job, and refinements are continuing. The Indian "Rosetta Stone" (center) is a sample of prehistoric penmanship incised in the Jurassic sandstone cliffs. These characters conveyed meanings to their fellow primitives, but moderns have never completely solved the puzzle. At the right is shown a picture of a prehistoric village, or group of kivas, just as they were found on top of a low knob near Overton, Nevada. Rocks, solidly set in the ground, remain as they were discovered and outline the rooms and assembly chambers of the prehistoric inhabitants.

Wind, Water, Weather, and Time Carved the Colorful Rugged Sandstones in Nevada's Valley of Fire

THE VALLEY OF FIRE, a unique, colorful, natural phenomenon, comprises an area of several thousand acres in Clark County, 50 miles northeast of Las Vegas, Nevada. The land has been set aside as part of the State Park system because of its unusual natural features, striking red sandstone masses, and its prehistoric significance as evidenced by many thousands of petroglyphs, or rock characters, appearing on some of the high cliffs within the park's confines. Overton, in the adjacent fertile Moapa Valley, a small community at the northeastern edge of the Valley of Fire, affords a convenient entry for visitors to this spectacular southern Nevada area.

Strange and impressive, the Valley of Fire is a basin about 6 miles long, 3 to 4 miles wide, with an irregular surfaced floor and protruding jagged walls of red Jurassic sandstone. Etched by the desert winds of many centuries, the rocks have been moulded into grotesque and intensely interesting shapes and forms. Wall faces of some of the protruding sandstone masses are covered with thousands of well-preserved incisions, or ancient writings, cut into the face of the cliffs by prehistoric people, and, no doubt, served as a community broadcasting station for events and happenings of those ancient times. Erosion and weathering, helped by many gusts of wind carrying grains of sand that have blasted the layered rocks and emphasized the laminations of the native stone, have turned them into peculiar shapes.

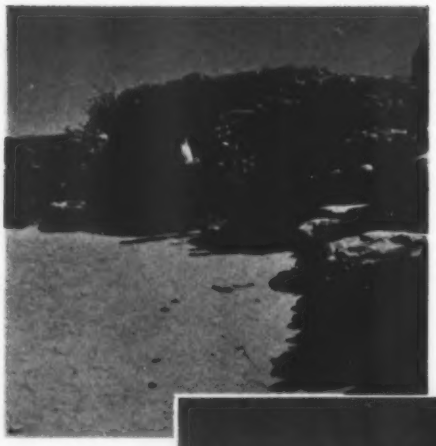
An added feature of interest is found in the several fragments of a petrified forest. The fallen and solidified trunks evidence an ancient tree-covered area of considerable measurement.

Under the same state park authority as the Valley of Fire State Park is the museum, a long, one-story structure of native stone on the outskirts of Overton. Its construction and inauguration into service was inspired by the desire to afford a repository for the preservation, in a comprehensive manner, of the archeological relics and remains found at Lost City, a fine example of a prehistoric

Restored prehistoric dwellings show the early type of habitation.

The Overton Museum contains displays of hundreds of artifacts and articles found in the Valley of Fire vicinity.

These rocks, geologically, represent some of the oldest found in the State. In the Valley of Fire sandstone rocks of the Jurassic period have been jumbled and tumbled into all shapes and forms.



At the Overton Museum, dwelling units of the prehistoric people have been restored and preserved.

This prominent knob typifies the ruggedness of nature's fashioning.

Prehistoric People, Through Petroglyphs, Used the Red Sandstone Cliffs as Community Broadcasting Stations

community habitation, which was discovered years ago in the lower end of Moapa Valley. The Lost City was partially excavated and exposed before the waters of the Colorado encroached and submerged the site when Hoover Dam was completed. Lost City has been "lost" in the waters of Lake Mead, but a replica of the site was restored at the Overton Museum. Lake Mead has now covered the Lost City site for nearly 20 years.

The museum structure and its surroundings, including the restored kivas, or prehistoric houses, were designed and constructed by the Civilian Conservation Corps in the early 1930's through the supervision of the National Park Service. This restoration at Overton Museum is a faithful interpretation of early Indian life and shows the type of dwelling used by the primitive peoples when they occupied that part of Nevada.

Apparently the early peoples found the Valley of Fire a place of refuge and suitable to their mode of life for it contains much evidence of their habitation. Perhaps their more permanent marks are the figures of animals and other objects incised into the wall faces. These, probably cut with stone knives, record the success of the hunting and fishing forays of their time. One wonders, however, what methods were used to cut them so high above the valley floor on the precipitate cliffs. The Valley of Fire probably has more prehistoric rock writing characters scrolled on its numerous cliffs than can be found anywhere else in the State.

Ancient red rocks in the Valley of Fire which have been exposed to the sun, wind and infrequent rains of the vicinity, have been moulded into fantastic designs and shapes. The Turtle Rock, the Bee Hive, the Elephant Head, the Donald Duck Rock, the Atlatl or Hanging Rock, on the face of which are thousands of petroglyphs, are all outstanding examples and noteworthy of mention.

The Valley of Fire can be reached over paved highways U. S. 91 and 93 to Overton. In the park the roads are unpaved but are maintained and kept in good condition for the traveling public.

Those precisely layered, laminated rocks that you see pictured at the top right were chiseled by the wind and sand in the Valley of Fire. Many similar examples exist in the several thousand acres set aside as a state park. Entrance to this strange geological phenomenon can be made through Overton, about 55 miles northeast of Las Vegas. In the second picture at the top right, an overhanging rock, found in place, but solid, shadows the motor car as it passes along the Valley of Fire road. Some outstanding examples of jumbled and misshapen rocks evidence the finesse of nature's sculpturing on a massive scale, using abrasives as cutting tools.

HOOVER DAM

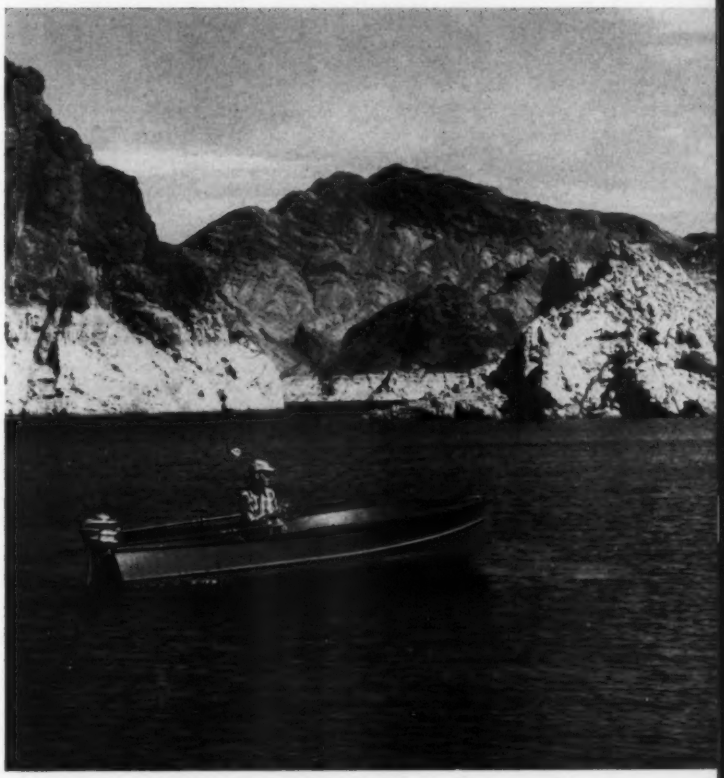
LAKE MEAD

Pitched A Fisherman's Paradise Into The Lap of A Parched Desert

TWENTY years ago there was no such body of water as Lake Mead. It wasn't there. Instead of a lake there was only the turbulent, narrow and swift Colorado River running wild and free. The Colorado, an unpredictable stream, in the upriver constricted canyons, at times would rise 50 feet over night. There was little navigation because of its treacherous waters, its submerged rocks and its swirling current. Some years there would be floods which brought death and destruction in their wake. The river was too muddy for fishing; too swift for pleasure boating. A few men, many years ago, after harrowing experiences, had successfully run the rapids and sucking whirlpools, through the canyons and broader stretches, from Green River to Needles. That kind of venture was for the bold and hardy only. It wasn't a popular diversion and not many were able to conquer the stream. Rio Colorado was recognized as a death-defying river. Its watershed covers large portions of seven western states, with a vast area of several hundred thousand square miles. The stream, in large measure, was useless and dangerous. Its waters wasted into the Gulf of California for ages, with its power potential undeveloped.

For years man had dreams of taming this mighty river by harnessing its power. It was a long, tedious struggle before this came to pass but eventually the dreams came true. Now the Colorado River has Lake Mead as a part of its tortuous confines.

Hoover Dam, one of the greatest engineering projects ever conceived by man, was constructed in five years. The Colorado, at last, had been mastered. Hoover Dam's function was to conserve the Colorado's precious waters for useful purposes in the great Southwest, afford power generation to supply



Lake Mead provides good fishing for the sportsman.

Small inlets and coves are on both sides of the lake. This is Wishing Well Cove.

Fishing parties on Lake Mead usually come home with good catches.

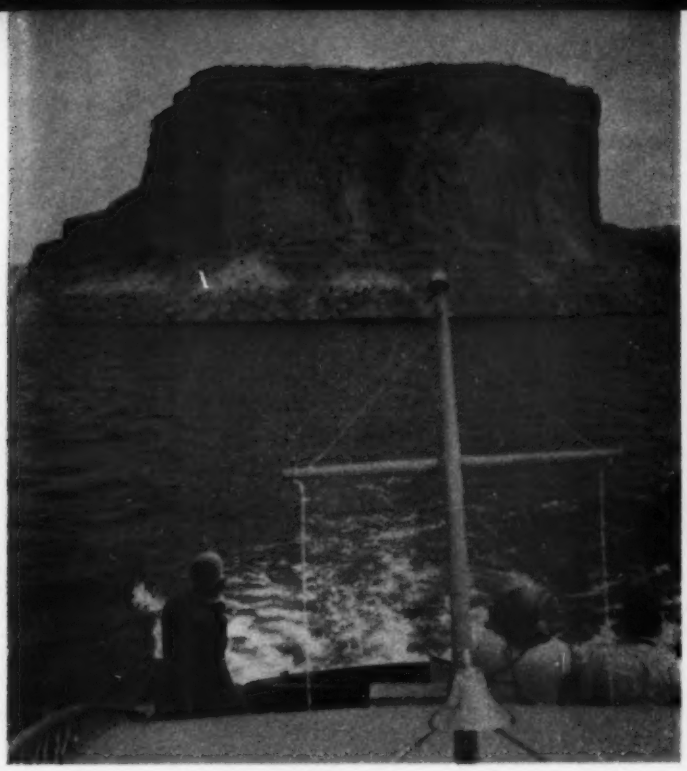
fast-growing communities, prevent wasting floods and supply water for vast areas of arid but fertile soil. All of these objectives have been attained through the completion of Hoover Dam.

Recreational centers, boat docks, tourist camps, lodges and various other types of resorts have come into being to accommodate any and all visitors who, in greater numbers each year, recognize the value of this great body of water for water sports and recreational purposes.

Lake Mead serves as a travelway to the world's most spectacular scenic area—the Grand Canyon of the Colorado, in

Supervision over the waters of Lake Mead is in the hands of the National Park Service whose headquarters are located in Boulder City. Boat landings for water craft are located at Hemingway Wash, shown at right, and other places along the shores of Lake Mead. Fishing is not limited to adults and it looks like these kiddies have caught their limits. Lake Mead has made water sports available in an area where such facilities were unknown 25 years ago. Fishing is a year-around activity as there is no closed season and the lake abounds in black bass, blue gill, crappie and catfish.

Water sports such as boating, surfboarding and swimming are popular through the long summer season. Winters in the Lake Mead area are mild, mostly sunny and very delightful. Measured by volume, Lake Mead, above Hoover Dam, is the largest artificial lake in the world.



Big Black Bass Are Favorite Catches

"The Temple," up the Colorado River, is shown at top left. Boating through Boulder Canyon at top right and the Intake Towers of Hoover Dam comprise the other illustrations on this page.

Arizona. Boats leaving the docks on the Nevada side of the river pass through Boulder Basin, Boulder Canyon, the Big Basin, Virgin Canyon, Virgin Basin, and Iceberg Canyon before coming to the Arizona state line. Boats can proceed to Pierce's Ferry, still beyond the Arizona line. Rugged scenery, comparable to that found in Grand Canyon, passes in review as boats ascend the river.

Fishing licenses for Lake Mead waters are good for one year. Resident fees are $3.50; nonresident, noncitizen $5. A special 5-day visitor's permit is issued to nonresidents and noncitizens for $3.50. Licenses are issued free to residents over 60 years of age who have resided in Nevada for at least 10 years, resident Indians, and servicemen of original Nevada residence now stationed outside of Nevada while home on leave. There is a reciprocal agreement between Arizona and Nevada for fishing licenses and a license issued by either state, in proper form, will be recognized and respected by officials of either state.

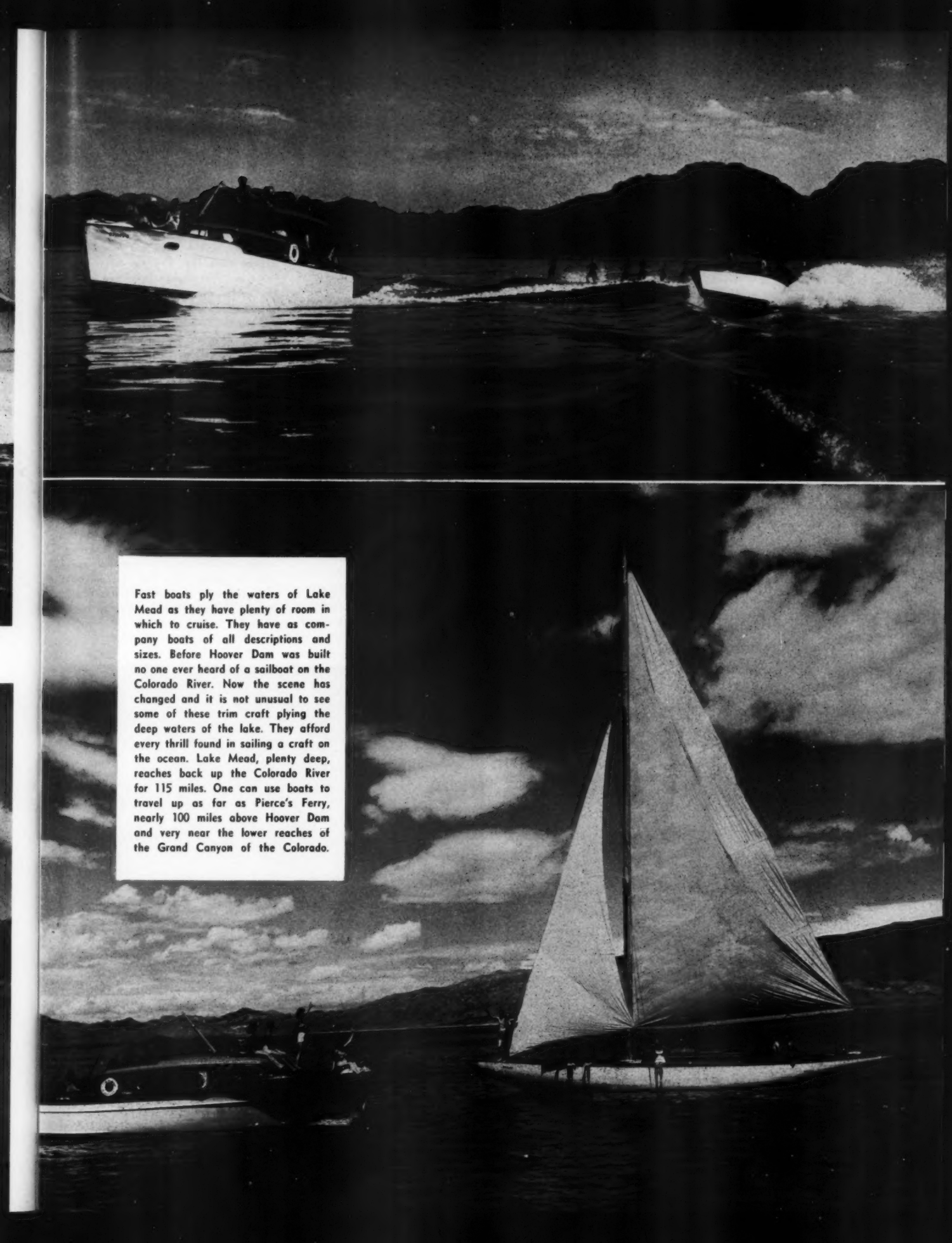
Boat landings are located at several places along the shores of the river. The Overton dock is located at the end of a paved road, 12 miles from Overton, Nevada, and has cabins, boats and motors, cafe and tackle store, guide service, live bait, trailer space and fishing license facilities.

The Las Vegas Wash dock can be reached by taking a paved road from Henderson or by continuing north from the Boulder Beach dock. Boats and motors, fishing tackle, live bait, and fishing licenses are available. There is also a sandwich stand.

Boulder Beach dock is located on a paved road about 6 miles northeast of Boulder City and has boats and motors, cafe, tackle shops, guide service, live bait, and fishing licenses.

The Temple Bar landing can be reached by taking a dirt road for about 25 miles off the Hoover Dam-Kingman (Arizona) Highway and has boats and motors, fishing tackle, live bait, cabins, groceries, trailer space, fishing licenses and an airstrip.

You can have lots of fun on Lake Mead, boating, fishing, or water skiing behind a trim, fast cruiser. The picture immediately above shows the boat landing at Las Vegas Wash several miles above Hoover Dam. There's a deep thrill in catching a good-sized black bass in Lake Mead. You never know how big they are until you get them out of the water. They usually run from 3 to 15 pounds.



Fast boats ply the waters of Lake Mead as they have plenty of room in which to cruise. They have as company boats of all descriptions and sizes. Before Hoover Dam was built no one ever heard of a sailboat on the Colorado River. Now the scene has changed and it is not unusual to see some of these trim craft plying the deep waters of the lake. They afford every thrill found in sailing a craft on the ocean. Lake Mead, plenty deep, reaches back up the Colorado River for 115 miles. One can use boats to travel up as far as Pierce's Ferry, nearly 100 miles above Hoover Dam and very near the lower reaches of the Grand Canyon of the Colorado.

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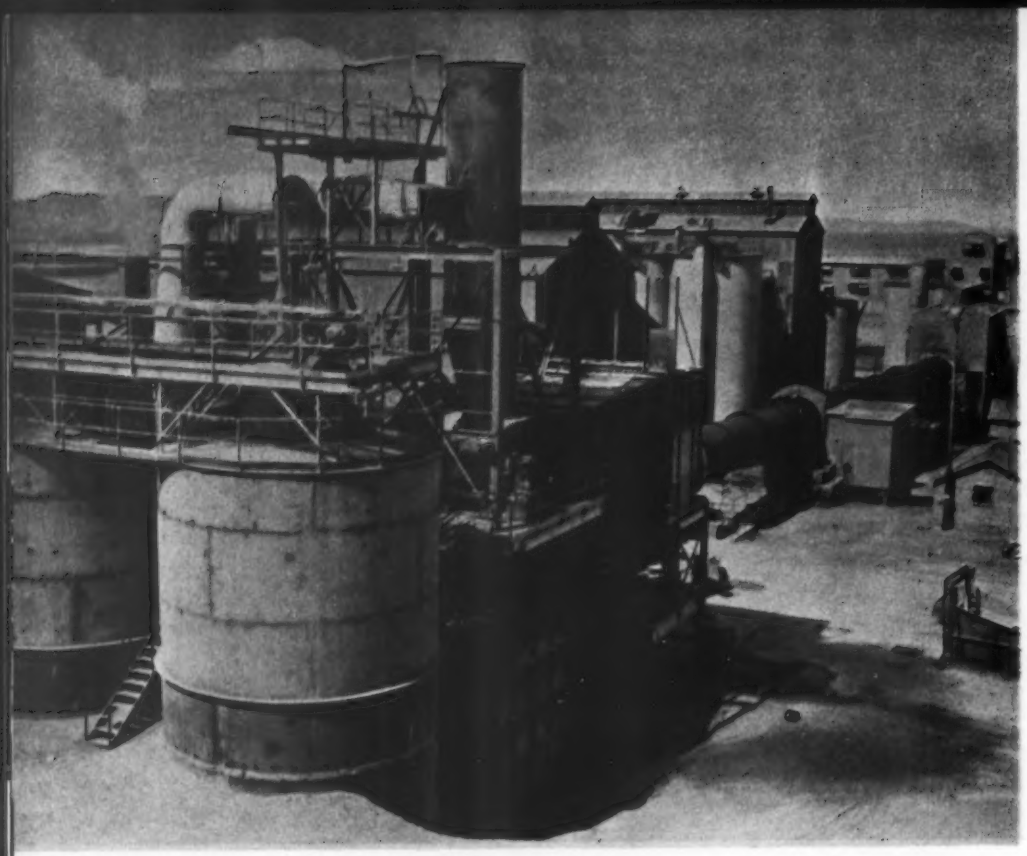

Magnesite ore, found in great quantity at Gabbs, northwestern Nye County, Nevada, is mined, crushed, sized and dead-burned at the mine site. The top left picture shows the feed storage tanks and kiln at the plant. Other buildings are the administration building, the loading bins, and the stockpiling yards. At lower left a kiln burner or operator observes the conditions in the rotary kiln. The face shield contains two dark blue protective lenses through which he can note the conditions in the kiln. The lower right picture shows the old and new workings of Basic Refractories, Incorporated at the Gabbs plant. Development of the magnesite and brucite deposits constitute one of Nevada's major nonmetallic projects. The product of the mine is extensively used in the steel industry. Starting from scratch and an empty, desolate, desert area, the project has brought into being a small community which is proud of its civic progress, its new school, its library and recreational facilities for young folks. The vast potential as a source of magnesite assures operation at Gabbs for many years to come.

GABBS

Is One Of Nevada's Major Industries—
Operating On
Non-metallic Magnesite and Brucite

NEVADA is and always has been a mining state of major importance. It ranks high on the list of Western States as a producer of both metallic and nonmetallic ores. From its very beginning as a state in 1864, following the discovery and development of the rich silver-gold deposits on the famous Comstock Lode at Virginia City, great wealth has come from its mines. In the early days of development these products consisted mainly of gold, silver, copper, lead and zinc, which have been taken from the ground in enormous volume having an immense money value. In more recent years numerous nonmetallic mineral deposits of large expanse have been found, adding immeasurably to the known natural resources of the State.

One such deposit of great extent and high importance to the nation's steel industry is that of the brucite and magnesite ore bodies located at Gabbs, northwestern Nye County, 35 miles from the Southern Pacific railhead at Luning, Nevada. The two minerals intermingled in some lower hills of the Paradise Range were discovered in 1928, but their significance was not fully realized until some years later.

In 1936 Basic Refractories, Incorporated, an Ohio company, sent Norman E. Hanson, of Wisconsin, one of their engineers, to Gabbs to examine the property owned by the United States Brucite Corporation with a view to purchasing the property. At the time Gabbs was not even spotted on maps; it was nonexistent. The area was better known as Gabbs Valley, a wide-open desert basin completely surrounded by high hills, desolate and deserted.

On Hanson's recommendations B. R. I. took over the brucite property and was operating it for their own use when World War II broke out. Shortly after the Japs bombed Pearl Harbor the urgent call went out through the nation for metal alloys to be used in the prosecution of the war, particularly for metals in making airplanes. One of the vitally needed materials was the metal magnesium, which, to the time, was produced only from the brine, or salt water, process.

Among the first to respond to the government's call for patriotic help was Howard P. Eells, dynamic president of Basic Refractories, Incorporated, with his offices in Cleveland, Ohio.

Eells informed the government at Washington that at Gabbs, Nevada, in the hot, desolate desert country there was limitless tonnage of magnesite waiting to be converted into vitally needed magnesium metal, which is one-third lighter than aluminum and of comparable tensile strength. After negotiations which continued for some weeks, the formation of a new company to handle the project, financial arrangements to advance the operation, and inauguration of a different formula for producing the "wonder metal," Basic, through Eells, was authorized to construct the mammoth plants which later sprang up at both Gabbs, in the Nevada desert, and at Henderson, in Clark County, near Hoover Dam.

Eells and Hanson were confident the plant at Gabbs could be converted for production of peacetime magnesia refractories and kindred products, essential to the steel industry for the maintenance of open hearth and electric furnaces.

(Top) Storage tanks and loading chutes at Luning.
(Center) General view of the Basic plant and the townsite of Gabbs.
(Bottom) A big stockpile is always available to keep the plant running.

The entire setup at Gabbs, Nevada, where Basic Refractories, Inc. and the Standard Slag Company have big plants for processing magnesite.

You are looking (lower left) at the largest brucite deposit in the world. Its value as a nonmetallic mineral in industrial uses is great.

Basic Refractories, Inc., in 1948, through agreements and settlements with the Federal Government, acquired the dormant plant at Gabbs. Under the direction of Norman Hanson the operation continued to grow in scope and brought greater stability to Gabbs. Another major operation at Gabbs is the Standard Slag Company which has large magnesite interests in the area, including a sizeable treatment plant.

Basic Refractories, Inc. rehabilitated their properties, constructed new units, installed new and expensive machinery to process the ores, inaugurated large scale mining through open pit and power shovel methods and, with an added stage of refinement for the ore at the mine, it assured continued stability for the town of Gabbs and vicinity.

Gabbs, while small in population (about 400 persons), now has one of the finest small libraries in the State, separate clubhouses for the Girl Scouts and the Boy Scouts, and is using a reconditioned, former Tonopah Air Base building as a church. New retail stores and a bank, plus several other business establishments serve the townspeople well. Recreation has been given its proper consideration for Gabbs has a baseball diamond, football gridiron, a gymnasium, big swimming pool, tennis court, theater; and it also has a new high school, and an airport near town.

Basic Refractories, Inc., besides erecting many units for its ore processing plant, has built a new administration building,

installed a 400-foot rotary kiln for dead-burning magnesite, placed big storage bins at Luning, the railhead, a standby community power plant and pump house, as well as a separate water cooling tower for the townsite proper. Gabbs has an abundance of underground water made available to all householders and trailerites without charge and without restriction on quantity, but virtually the entire supply comes out of the ground at 154 degrees temperature making precooling necessary before use.

Granular basic refractories are used to form and maintain the inside surfaces of the nation's basic steel-making furnaces. Without these materials, production of steel by the basic process would be impossible. However, despite their superior resistance to steel refining slags, granular refractories are slowly eaten away by the white-hot metallic bath. To combat this constant erosion, various methods are employed to maintain the furnace hearth in proper operating condition.

Forty years ago our American steel industry relied almost entirely upon imported Austrian magnesia refractories for the construction and maintenance of basic steel-making furnaces. Now this trend has been changed and much of the material needed for the steel mills comes from eastern dolomite and Nevada magnesite.

Granular basic refractory products, produced by B. R. I. and used to some degree by virtually every producer in the United States, Canada and Mexico, are of the four following types: Dead-burned dolomite and magnesite; magnesia ramming mix; magnesia hearth refractory, called by B. R. I.'s tradename Basifrit; and gun refractories which are applied through a gun process developed by B. R. I.

Basic Refractories, Inc. has helped to simplify the hot repair and maintenance of vertical walls in open hearths, electric furnaces, soaking pits and other refractory lined structures and has used much of Nevada's extensive deposit of magnesite in this endeavor.

The mountain of magnesite located at the desert town of Gabbs looms up to an elevation of 6,500 feet, and the potential tonnage of that mountain is hard to estimate. Gabbs, in its humble but most important way, will be serving the steel mills of the United States for many years to come.

The plant of B. R. I. at Gabbs is kept working day and night. Upper picture shows part of the interior of the plant at night, and the bottom picture gives you a good view of the 400-foot rotary kiln in which the magnesite ores are dead-burned to remove all impurities and water, and make it ready for market. The plant at Gabbs employs more than 150 persons. The mine was discovered in 1928, and during World War II the product was used in producing millions of pounds of metal magnesium used in the building of airplanes and various other implements of war.

During the past 15 years Basic Refractories, Inc., has developed a network of roads on its properties at Gabbs so that all sections of the mine and plant can have access by motor vehicle. This involved many miles of road building, which the company handled through its own organization. The roads are well kept, well used, and some are hard surfaced for the use of their heavy equipment.

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